

## PROJECT DESIGN PHASE -1

Date	15-10-22
Team id	PNT2022TMID27750
Project name	Project - IOT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum marks	4

### **SOLUTION ARCHITECTURE:**

- The wearable IOT gadget consists Different components such as Temperature sensor, Touch sensor, heartbeat sensor, GSM, GPS modules and serial camera are connected to the Link It ONE Board along with build in GSM, GPS modules
- The GSM module which is used for tracking the child location in emergency situation
- The camera which captures the image of the child's environment and send it to parent/guardian
- Temperature sensor is used to measure temperature of the human body. The body temperature and galvanic skin resistance of the body is changed in abnormal conditions
- This was used as input information and the alert signal is produced while it crosses the threshold value. This work deals with body temperature and stress, skin resistance and relationship between them. By applying these parameters activity of the person was analyzed.
- Body position is determined by a triple axis accelerometer
- The touch sensor has three main components on the circuit board. The first component comprises of resistors, transistors, capacitors, inductors, and diodes whose area is measured physically and its analogue signal is send to an amplifier. Depends upon the resistant value of the potentiometer the amplifier amplifies the signal and sends the signal to analogue output of the module. The third component is comparator, when the signal falls under a specific value it is used to switch the output
- The heartbeat sensor is used in the proposed system for measuring the pulse rate
- The device sends the monitored parameters data such as Temperature, touch and pulse rate to cloud. When there are any abnormalities in temperature or touch or pulse rate readings, a SMS is sent to the parent/caretaker mobile phone immediately

PARENT



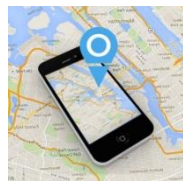
ALERT



MOBILE APPLICATION



CLOUD



GSM LOCATION TRACKER



SENSORS



SERIAL CAMERA



IOT WEARABLE WATCH